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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/040,632 | 01/09/2002 | Hyun-sook Kang | Q65113 | 3030 |

7590 11/14/2006

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| EXAMINER |
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QURESHI, AFSAR M

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| ART UNIT | PAPER NUMBER |
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2616

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/040,632

Applicant(s)

KANG ET AL.

Examiner

Afsar M. Qureshi

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>7/31/02; 1/25/05</u> | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

1. This action is responsive to Amendment/REMARKS received on 8/24/2006.

Response to Arguments

2. Applicant's arguments, see REMARKS, filed on 8/24/2006, with respect to the rejection(s) of claim(s) 1-15 (16-18 allowed) under 35 U.S.C. § 103 (a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newfound prior art, Publication No. 10-2001-0004954, Jang et al. ('Jang' hereinafter).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rune (US Pub. 2001/0002906.), in view of Jang et al. ('Jang' hereinafter), Pub. No. 10-2001-0004954 (Korean Appl. No. 10-1999-0025728).

claims 1-3, 6-7, 10, and 13. Rune teaches a wireless communication apparatus, system, and method (Fig. 6, Rune) comprising:

A transceiver unit for receiving and transmitting data (Radio unit 601, Fig. E Rune)

A controller unit 602, connected to host 607 via communication interface CPU 603 (claim 6), CPU 603 is connected to the memory 604 (claim 2) paragraph [0005] and [0055]). A master device M, with slave devices connected to master device M, (see figs. 3) for analyzing destination of a packet received for a certain period of time (Rune teaches method steps of analyzing the header of the packet and IP header that includes the destination of a packet. See sec [0031], [0035], [0037], and [0069], claim 7).

Rune further discloses that above systems could be implemented as the master unit (Fig.7, sec [0006], Rune.) and can be connected to a host via communication interface (Fig. 6, Rune.) Rune also shows a memory for storing the packet status of the wireless communication (Fig. 6, Rune.)

Rune also teaches method steps of detecting the destination (analyzing the packet data). Rune further discloses that the packet could hold different timeslots. Therefore, different packet with different destination would have different amount of slot usage and need to be analyzed as well. See sec [0004], [0010], and [0057], Rune.) Packet/multipacket length could also often be considered as slot usage. In other words, different channel can be assigned to different destination. Some channels would be using multi-timeslots and the other be only using single timeslot (sec [0004], Rune.)

Rune does not specifically disclose selecting a temporary master device according to the amount of slot usage, as recited in claim 1.

Jang, in the same field of endeavor, discloses selecting a slave server as master push server (temporary master) based on slot usage (see Abstract, paragraph 14 under heading "Structure & Operation of the Invention").

Rune desires to improve transmission from slave device (temporary master device) to another slave device, especially in a scatternet environment, without creating unnecessary processing overhead. It would have been obvious to one having ordinary skill in the art, at the time of invention, to be able to utilize push system, taught by Jang, and modify Rune in order to configure slave device into temporary master device so that low-level routing of a packet can be achieved thus avoiding unnecessary data overhead in case of a single master device.

Claims 4-5, 8-9, 11-12, and 14-15.

Rune does not specify whether or not the controller selects the temporary master device. However, Jang discloses server control system 15 (controller), performing the role of master device depending on the information in the message queue, selects the slave push server¹⁶ (see figure 1, paragraphs 21 and 22) based on message length in the message queue (see paragraph 24). Again, the motivation to modify Rune would have been the same as stated in the rejection of claim 1 above.

Allowable Subject Matter

4. Claims 16-18 are allowed. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record fails to disclose the method steps of determining whether or not a switching period has passed as packets are sent/received and increasing the number of slot usage according to a destination recorded in the packet.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M. Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272 7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

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Customer Service Representative or access to the automated information system, call
800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'A. Qureshi', with a horizontal line underneath the name.

AFSAR QURESHI
PRIMARY EXAMINER
11/8/2006